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OPERATIONAL NOTE 1989 04 1989 11 13

# SUMMARY OF THE 1989 ANNUAL MEETING OF THE INTERNATIONAL MAPLE SYRUP INSTITUTE HELD IN LEVIS, QUEBEC OCTOBER 22 & 23, 1989

By:

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New Brunswick Department of Natural Resources and Energy

"Helping woodlot owners help themselves."
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The Conference was divided into three parts. The first part involved a field visit to a choice of two sugar bushes. The second part was the business meeting of the I.M.S.I. The third part was a group of seminars related to key factors affecting the Maple Industry.

PART 1: FIELD VISIT

I visited the sugarbush of Mr. Marcel Landry. His Maple Sugar business is an incorporated company, he maintains approximately 8,000 taps. His sugarbush is tapped using the plastic tubing and vacuum system. The sugarbush is divided into three areas each having its own vacuum and pumping station.

There are 12 collector lines of one inch diameter and 10 lines of 3/4 inch diameter. He collects sap from 300 to 500 taps on his one inch lines and 200 to 300 taps on his 3/4 inch lines. The average slope of his subarbush is 5% and his collector lines average 2,000 to 2,500 feet each. The average number of taps per secondary line is 8 to 10. The producer's syrup is packed in bulk using barrels and is sold directly to "The Cooperative of Maple Syrup Producers of Quebec".

I have included the complete documentation of the sugarbush as attachment one. At this point, however, I must bring to your attention the extraordinarily high amount of syrup produced during the 1989 season. My belief is that these values were incorrectly compiled.

No technical surprises were found at this sugary. The sugarbush is well equipped and the latest technology is in use. However, the same can be said for most New Brunswick sugarbushes of this size. One impressive point is the large number of technical "gadgets" developed by the producer himself to improve the efficiency of his operation. These "gadgets" are developed through experience and trial and error. Our New Brunswick producers are developing these types of techniques and when they are proven they will be transferred to other producers through extension visits and courses.

PART 2: Business Meeting

Reports were given by the President, and General Manager; the Treasurer's report will be forthcoming and mailed to members. Some highlights from the reports are:

- The Institute has just completed an extremely effective membership drive this past year and now counts Mr. Paul Ouellet from New Brunswick as being on the Board of Directors.

- At the present time there are approximately 8,000 members in the Institute.

- A market attitude report undertaken by the Institute has just been completed (see page 7 - Karen King).

- Many members do not see the benefits of the "Maple Syrup Bank" and do not support this method of holding surplus production.

- A number of major problems were discussed including:

  - The overproduction during the past two years
  - Decreases in consumption
  - Maple dieback and acid rain

PART 3: Reports given by Guest Speakers

Mr. Micheal Perley - The Canadian Coalition Against Acid Rain

Mr. Perley's Report covered pollution reduction efforts in Canada and the United States. Reductions are taking place in both jurisdictions, however, they are slow in coming and the reductions are just that reductions in increases, not eliminations. Mr. Perley feels that our Canadian legislators are finally reacting to public pressures, but that ideally the legislators should have been leading the effort. Significant reductions are now taking place in Canada in terms of Nitrogen oxide and Sulphur oxide emissions. In the United States reductions are only being debated. However, the feeling is that if only limited reductions take place at least no new major polluters will be allowed to come on stream. Generally, the speaker believes reductions in increases of sulphur and Nitrous Oxides emissions will take place over the short-term.

Sandra Wilmot - Pear Thrips

Sandra works for the State of Vermont's Department of Forests, Parks and Recreation.

Before 1985 there was no pear thrips problem in Vermont. In 1988 southern Vermont had high damage from thrips over extensive areas. The insect was introduced into the United States in 1901; however, the damaging effects of the insect on sugar maple are just now being seen in the northeastern United States.

Some negative effects on sugar maple trees caused by the pear thrips are:

- reduced energy reserves (weakened tree)
- slow growth and slower taphole closure
- dry root zone (defoliation)
- root dessication
- flower bud damage (less seed)

Much research has already been undertaken on control of the pear thrips in Vermont; however, more work is needed on applied research for the control of the damage done by the insect. At present there is no proven control method approved for Vermont sugarbushes. Control measures will be forthcoming, however, Vermont is concentrating on biological control measures and much more research is needed. It must be stressed that research is only one to two years old and potential future damage from the insect is unknown.

Gerry Dion - Small Brothers Company Ltd.

New equipment and higher efficiencies of present equipment were the highlights of this seminar. Improvements have been noted in the following machinary used in maple sugarbushes.

Reverse-Osmosis Machines

- Improved membrane technology has reduced membrane prices and increased the efficiency of membranes.

- The reverse-osmosis machine has been much reduced in dimensions.

- New methods of washing membranes has increased their life expectancy.

- Overall price of the Reverse-osmosis machine has been reduced.

Piggy-Back Pan

- Can increase the efficiency of older-style evaporators by up to 65%.

- Sap leaving the piggy-back pan has a concentration of from 8 - 12% sugar.

- By using the system, which operates like a pressure cooker, water boils at $170^{O}F$ instead of $212^{O}F$.

Lightning Furnace

This furnace is available in oil or wood models. It:

- Has an increased evaporation efficiency of 40 - 50% over standard furnaces.

- gives savings of up to 15% in oil consumption.

- gives savings of 30 - 35% in wood usage over conventional wood furnaces.

Hurricane Furnace

- Gives up to 30% increase in evaporation efficiency.

Modified Oil Furnace

-Gives up to 20% evaporation efficiency and a reduction of 10% in oil consumption

New Ceramic Insulator

This material is used inside the evaporator on the arch walls for insulation purposes. The material is used in all of the above named furnaces. The use of this material, along with other evaporator changes mentioned above, can lead to increases of up to 125% in the number of gallons per hour the improved evaporator can handle.

Ann Nicholson Moore - Maple Experts Incorporated

Many new developments have taken place in maple tubing systems. Among these is a new "quick-lok" spile which can easily be placed in or removed from the tree. New attachment valves based on the quick release principle are being incorporated in new maple tubing systems. These quick release systems facilitate the cleaning of tubing lines. Tube cleaning systems now use a mixture of air and water to clean secondary lines and facilitate the cleaning of long collector lines at great distances. Most new accessories were developed to increase the quality of the sap entering the sugar house.

Karen King - Karen King and Associates

The I.M.S.I. contracted Karen King and Associates to complete a market attitude survey. The major findings of this survey for four major cities (San Francisco, New York, Vancouver, and Toronto) are listed below:

1) Maple syrup is most positively perceived as a topping at breakfast.

2) Maple syrup was most poorly perceived for use in drinks.

3) Maple syrup's most appropriate use was seen as a sweetener and a topping.

4) Specific maple recipes in order of selection were:

   (A) Maple up-side down cake.

   (B) Maple multi-grain bread

   (C) Maple flavoured butter for toast

   (D) Maple based sauces for barbeques

5) The most appropriate description of maple syrup was perceived as::

   - it is a natural product

   - it has a unique flavour

It must be remembered that this market attitude survey forms only a small part of a marketing campaign and large sums of money will be needed to undertake a sutstantial marketing campaign.

Everett Willard - Vermont Maple Syrup Promotion Board

Mr. Willard spoke on the benefits associated with the formation of a Provincial or State Maple Syrup Promotion Board. Mr. Willard discussed the make-up of the Board and the activities the Board has undertaken. The talk demonstrated to other States and Provinces the potential that could be derived from this type of concentrated effort. For further information please see attachment 2.

Claude Tardif - President I.M.S.I.

Approximately 32 million pounds of maple syrup have been consumed annually during the past few years. World production in 1988 and 1989 was approximately 40 million pounds. Attitudes of the consuming public need to be changed to increase potential sales. Maple Producers must address marketing as the most important problem facing the industry in the immediate future.

Simon Thiboutot - Agriculture Canada

The following trends in production have been observed in the last nine years.

| | |
|---|---|
| 1981 | Production met the Market |
| 1984 | 25 million pounds (insufficient to meet demand) |
| 1985 | Underproduction for the Market |
| 1986 | Underproduction for the Market |
| 1987 | Underproduction for the Market |
| 1988 | 40 million pounds (Overproduction for the Market) |
| 1989 | 40 million pounds (Overproduction for the Market) |

During 1988 syrup sold for up to $2.75/lb. In 1989 the price dropped considerably and stocks remained unsold from 1988 and 1989. During 1988 and 1989 a Maple Syrup Bank was instituted to store surplus syrup. The Federal Government will not provide assistance to store syrup in the future. Producers must organize in order to better control both the production and marketing of their product.

Maple Producers in Quebec are reviewing the possibility of a restructuring of the maple industry in Quebec. The restructuring may call for prescribed quotas, production volumes, methods of sales and industry prices and may affect the whole maple industry. Nothing has been decided; however, this situation must be closely watched.

# ERABLIERE - GRILLE D'EVALUATION

NOM DU PRODUCTEUR: ERABLIERE MARCEL LANDRY INC

ADRESSE: 250 SAINT FREDERIC ST-SYLVESTRE LOTBINIERE G0S 3C0

NOMBRE D'ENTAILLES 8000 Tubulure OUI Transport d'eau | OUI | NON |

Chaudière | | X |

## TUBULURE

- Marque IPL ET NATURAL FLOW Age 10
- Collecteurs: Diamètre - Nombre d'entailles - Pente - Longueur

| | | |
|---|---|---|
| 1. | 5. | 9. |
| 2. | 6. | 10. |
| 3. | 7. | 11. |
| 4. | 8. | 12. |

- Latéraux - Nombre moyen d'entailles 8 à 10
- Fréquence du lavage des collecteurs en saison N/A
- Lavage sur place en fin de saison OUI Temps 100 heures/homme
- Bobinage + lavage hors de l'érablière Temps
- Concentration de la solution de lavage: en saison N/A
  fin de saison une partie par 25
- Problèmes

## SYSTEME VACUUM

- Pompe à vide: Nombre 3 Marque SIHI H.P. total 15
- Réservoir de transfert: Nombre 1
- Niveau de vide à l'extrémité des collecteurs 17 po Hg
- Système de refroidissement (SIHI) N/A
- Lubrifiant utilisé en saison morte N/A
- Transvideur: Modèle LAPIERRE
- Dispositif de démarrage automatique de la pompe OUI NON X
- Problèmes N/A

## AMELIORATIONS ET CORRECTIFS

### TUBULURE

L'exploitation est formée de trois unités ayant respectivement 3000, 2500 et 2500 entailles. Chacune de ces unités possède un transvideur et un système vacuum indépendant.

L'on retrouve 12 collecteurs de un pouce et 10 de ½ de pouce pour un total de 22 collecteurs. Il y a de 300 à 500 entailles sur les collecteurs de un pouce alors qu'on en retrouve de 200 à 300 sur ceux de ½ de pouce.

La longueur moyenne des collecteurs varie de 2000 à 2500 pieds avec une dénivellation de 5 pieds à chaque 100 pieds.

### SYSTEME VACUUM

**RESERVOIRS:** Nombre 5 Capacité totale 9000 gal. imp.

- Pour l'eau d'érable 5500 gallons
- Pour le concentré 1500 gallons
- Pour le filtrat (lavage) 2000 gallons

RESERVOIRS

**OSMOSEUR:** Marque LE SEPARATEUR Année 1986

- Nombre de membranes: Petites 24 Grosses N/A
- Capacité: Gallons par heure 1000 à 55 °F
- Fréquence des lavages une fois au milieu de la saison et une fois à la fin
- Solution de trempage en saison morte FORMALDEIDE
- Problèmes

OSMOSEUR

**EVAPORATEUR:** Marque SMALL BROTHERS

DESSIN

- Grandeurs: Largeur x longueur 5' x 16'
- Capacité d'évaporation 250 gallons/heure
- Grandeur des casseroles:
  - . à fond plissé 5' x 10'
  - . à fond plat 2' x 5' (3)
  - . finisseur 2½' x 7'
- Tuyau de cheminée: . diamètre 24 pouces
  - . longueur 32 pieds
- Préchauffeur NON
- Econobois NON
- Casserole superposées NON
- Combustible . Bois : 50 gallons de sirop par corde de 4'
  - . Huile : 1/7 gallons d'huile par gallon de sirop
  - . Autres:
- Nettoyage des casseroles:
  - . Fréquence du lavage de la casserole à fond plissé aux 10 jours
  - . Fréquence du lavage des casseroles de finition à tous les jours
  - . Solution utilisée eau courante
- Problèmes

EVAPORATEUR

SIROP D'ERABLE: Résultats de la dernière récolte

| DENSITE DU SIROP | NOMBRE DE LIVRES | % |
|---|---|---|
| A point (66-67° Brix) | 26190 | 69 |
| Trop clair (55-66° Brix) | 420 | 1 |
| Trop épais (67-76° Brix) | 11340 | 30 |

- Instruments de contrôle - J'utilise:
  - . Un thermomètre bimétallique OUI
  - . Un densimètre NON
  - . Un hydrotherme OUI
  - . Un réfractomètre OUI
  - . Un thermorégulateur OUI
- Filtration du sirop:
  - . Filtre d'orlon NON
  - . Filtre-presse OUI
  - . Utilisation de la poudre OUI
- COULEUR: Résultats de la dernière récolte

| CLASSE | NOMBRE DE LIVRES | % |
|---|---|---|
| Extra-clair | 8797 | 23 |
| Clair | 26683 | 70 |
| Médium | 2470 | 7 |
| Ambré | ---- | ---- |
| Foncé | ---- | ---- |
| Non classifiable | ---- | ---- |
| Rebut | ---- | ---- |

- Problèmes

SIROP D'ERABLE

**RECOLTE**

- Quantité de sirop produit à date 37950 livres
- Récolte moyenne 4.75 livres/entaille

**COMMENTAIRES**

**DATE:** 9 OCTOBRE 1989 **EVALUATEUR:** _____

**RECOLTE**

**COMMENTAIRES**

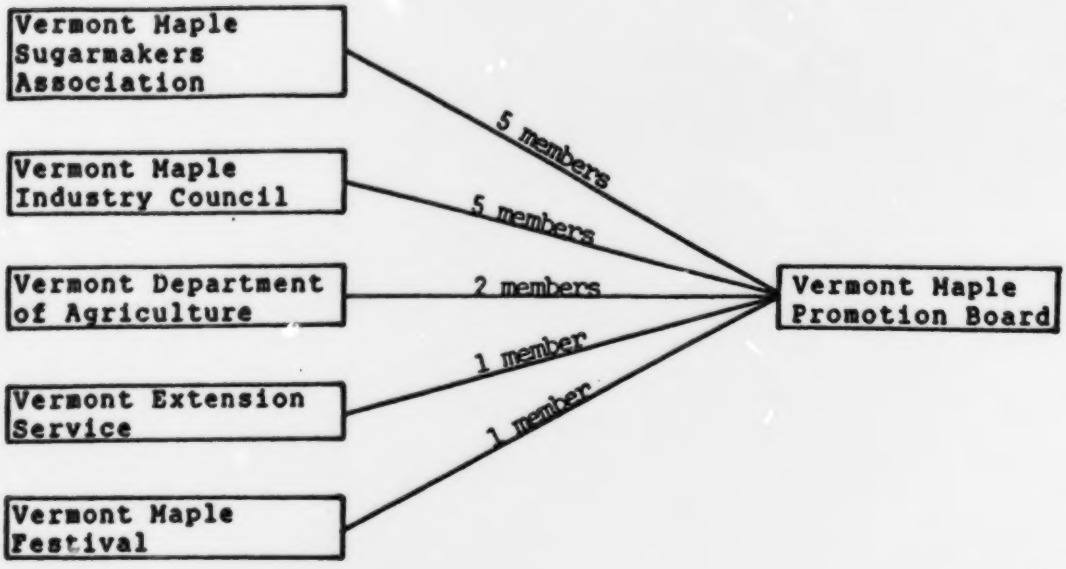
TÉLÉPHONE: (819) 332-3511
TÉLEX: 06-020640
CABLE: PRODLAC
FAX: (819) 332-3530

LUC DESBIENS ING. FOR.
Secrétaire général / Secretary General
Gestionnaire de la qualité / Quality Administrator

COOPÉRATIVE – CO-OPERATIVE
LES PRODUCTEURS DE SUCRE D'ÉRABLE DU QUÉBEC
THE MAPLE SUGAR PRODUCERS OF QUEBEC
2100, ST-LAURENT - CP / P.O. BOX 310
PLESSISVILLE, QUÉBEC, CANADA, G6L 2Y0

AH #2

# MAPLE PROMOTION BOARD




The Vermont maple industry can take pride in the accomplishments of their promotion board. Although our funds have been very limited we have been able to capture the attention of the news media across this land and even overseas.

Each year we sponsor the Vermont Maple Essay Contest with participation increasing each year. The 1989 winner was Jenn Mathews from Vergennes Union High School.

The 1989 Governor's Tree Tapping celebration was characterized by one visitor in his thank you note as one of the finest events his radio network had ever covered. This year Governor Kunin tapped a 15 inch maple tree planted on the state house lawn only a few years ago. Attracting much attention was the boiling of sap in an iron kettle over an open fire nearby. Maple sugar-on-snow was served from the promotion board's mobile sugar house. An opening banquet, square dancing and a tour to nearby sugar houses added to the education and the fun of the event. A fine delegation from the news media was present. The value of this promotion will become apparent not only in 1989, but in future years as well.

During the year we also:

Carried out a pre-Christmas advertising campaign

Advertised in Vermont Business Magazines

Maintained and insured the Mobile Sugar House

Sponsored "Cooking with Burt Wolf" television program for worldwide cable television

Printed, with the Department of Agriculture the brochure, Sugarhouses Open to Visitors

Furnished maple products for promotion

Made cookbooks, posters and recipe brochures available to producers

Furnished teachers with Maple Sugaring in Vermont: A Guide for Elementary Teachers

Widely distributed "A Proud Tradition" maple video

Purchased and distributed maple Syrup - The Flavor of Vermont pins

Developed a new education video film "The Maple Sugaring Story"

This film was shown at all county maple meetings and was enthusiastically accepted. Many, many copies have been sold and it gives promise of being one of the best promotional items we have produced.

The Board expresses its appreciation and thanks to all who have contributed to our promotion effort.

Sincerely,

Everett A. Willard

Everett Willard, Clerk
Maple Promotion Board

EW/tas